# Cisco DistributedDirector


This chapter provides information on the Cisco DistributedDirector product. The information is organized into the following sections:

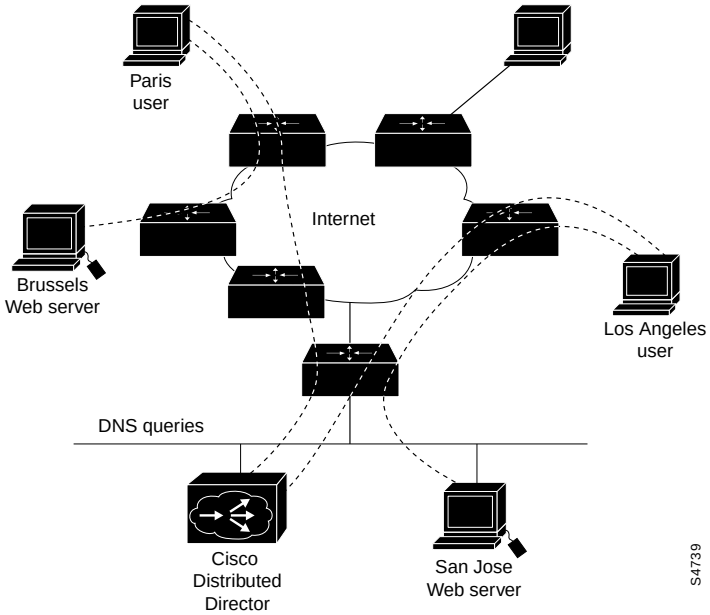
- Product Overview
- Product Numbers

## Product Overview

Cisco DistributedDirector is a device that leverages standard Domain Name Services (DNS) and information obtained from a network infrastructure to efficiently distribute Internet services among geographically dispersed web server sites.

Cisco DistributedDirector provides the ability to perform load distribution and scaling in a sophisticated manner that takes into account how close a user is to a particular server to determine the "best" server (see Figure 145). This means that users need only a single URL to access the geographically distributed set of servers, even though there are a number of servers in different locations performing the functions.

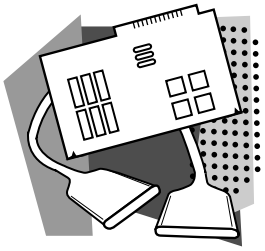
**Figure 145 Cisco DistributedDirector**



Cisco DistributedDirector can act as a primary DNS nameserver for a given domain or subdomain. It orders and filters responses to name service queries based on information contained in the network or in the service hosts. This sophisticated implementation uses the intelligence in the router-based networking infrastructure to determine the relative topological locations of the user and the server. A DNS query for a named service such as www.cisco.com is sent to the Cisco DistributedDirector. The device then queries selected routers serving the web servers in the network infrastructure for user-to-server distance information or other configurable metrics. The DistributedDirector sorts the various router responses and, using standard DNS, returns the IP address of the "best" or "closest" server to the user.

Cisco DistributedDirector can also be used to provide HTTP-session redirection services. In this mode, for example, queries sent to http://www.cisco.com will be routed directly to the DistributedDirector. The device will accept HTTP connections, query the routers in the network infrastructure as previously described, determine the "best" web server, make up the new URL for the real web server (for example, http://10.0.0.1 or http://www.cisco.mirror1.com), and send to the user the HTTP code "302 Moved Temporarily," specifying the new URL location. The user then connects to the "best" web server specified by this URL.

Three Cisco DistributedDirector models will be available in late 1996. The Single-Domain DistributedDirector will ship on the Cisco 2501 hardware platform (one Ethernet port). The Multiple-Domain DistributedDirector will ship on two Cisco 4700-M hardware platforms: one with the two-Ethernet-port Network Processor Module (NPM) and one with the single Fast Ethernet NPM. Please note that although Cisco DistributedDirector runs on these traditional Cisco router hardware platforms, it is not a router and is not intended to provide full routing capabilities.



# Product Numbers

Table 317 lists the product numbers for Cisco DistributedDirector.

**Table 317 Cisco DistributedDirector Product Numbers**

| Description | Hardware Platform | Interface | Product Number |
|---|---|---|---|
| Single-Domain DistributedDirector | Cisco 2501 | Ethernet | CA-DDIR-S-2501 |
| Multiple-Domain DistributedDirector | Cisco 4700-M | Ethernet | CA-DDIR-M-4700M-E |
| Multiple-Domain DistributedDirector | Cisco 4700-M | Fast Ethernet | CA-DDIR-M-4700M-FE |